AMENDMENTS TO THE SPECIFICATION:

Please amend paragraph [0001] of the specification as follows:

[0001] The present application is a continuation-in-part of U.S. Patent Application Serial No. 10/170,401, filed June 14, 2002, and entitled "SELF-CALIBRATING POSITION DETERMINATION SYSTEM;" and a continuation of U.S. Patent Application Serial No. 10/183,460, filed June 28, 2002, and entitled "SELF-CALIBRATING POSITION DETERMINATION SYSTEM AND USER INTERFACE," which claims the benefit of priority from U.S. Provisional Patent Application Serial No. 60/301,954, entitled "SYSTEM, METHOD AND USER INTERFACE FOR ADJUSTING THE YAW OF A SELF-CALIBRATING THREE-DIMENSIONAL ALIGNER," filed June 28, 2001.

Please amend paragraph [0040] as follows:

[0040] Depending on different dimensions of vehicles under alignment, the aligner uses a rotation mechanism (not shown) to rotate the alignment cameras 10L, 10R such that the cameras can properly see the alignment targets without the need to remove and/or reinstall the aligner. Examples of the rotation mechanism are described in a co-pending patent application entitled "Self-calibrating Position Determination System," by Jackson et al., application number [[______ ____________]] 10/170,401, filed June 14, 2002, which is commonly assigned to the assignee of the present application and incorporated herein by reference.

Please replace paragraphs [0030] with the following paragraph:

[0030] Fig. 1A shows an adjustable, self-calibrating wheel alignment system ("aligner") upon which an exemplary position determination system and user interface may be implemented

is described. The aligner has a left measurement module 2 and a right measurement module 4. The measurement modules include alignment cameras 10L, 10R for capturing images and generating positional data of alignment targets affixed to a vehicle under test. The alignment cameras 10L, 10R are supported by a left upright 52 and a right upright [[4]] 54 respectively. A data processing system (not shown) is coupled to the alignment cameras 10L, 10R for processing the positional data and determining the positions of the alignment targets. The aligner has a rotation mechanism configured to rotate the alignment cameras 10L, 10R. Depending on the size of vehicles under alignment process, the rotation mechanism rotates the cameras such that the viewing fields of the alignment cameras 10L, 10R are repositioned to see the alignment targets properly. The data processing system provides a user interface to communicate with a user operating the system.

Please amend paragraph [0048] as follows:

[0048] Detailed structures and operations of self-calibrating position determination systems are also described in a co-pending patent application entitled "Self-Calibrating, Multi-Alignment camera Machine Vision Measuring System," by Jackson et al., serial number 09/576,442, filed on May 22, 2000; and co-pending patent application entitled "Self-Calibrating 3D Machine Vision Measuring System Useful in Motor Vehicle Wheel Alignment," by Jackson et al., serial number 09/928,453, filed August 14, 2001; and co-pending patent application entitled "Self-calibrating Position Determination System," by Jackson et al., application number [[____________________]] 10/170,401, filed June 14, 2002 (noted previously), all of which are commonly assigned to the assignee of the present application and incorporated herein by reference.

After paragraph [0048], please add a new paragraph as follows:

As an option, a sensor is used to detect the rotation of the alignment camera and generate signals representing rotation status of the alignment camera. The signals can be fed to a data processing system and output to a user interface to show the status of rotation. The sensor can be disposed under the alignment camera to determine the rotation angle.

Please replace paragraphs [0056] through [0058] with the following paragraphs:

[0056] Data processing system 200 also includes a communication interface 218 coupled to bus 202. Communication interface 218 provides a two-way data communication coupling to a network link ~~220~~ 211 that is connected to a local network ~~222~~ 223. For example, communication interface 218 may be an integrated services digital network (ISDN) card or a modem to provide a data communication connection to a corresponding type of telephone line. As another example, communication interface 218 may be a local area network (LAN) card to provide a data communication connection to a compatible LAN. Wireless links may also be implemented. In any such implementation, communication interface 218 sends and receives electrical, electromagnetic or optical signals that carry digital data streams representing various types of information.

[0057] Network link 220 typically provides data communication through one or more networks to other data devices. For example, network link ~~220~~ 211 may provide a connection through local network ~~222~~ 223 to a host data processing system ~~224~~ 221 or to data equipment operated by an Internet Service Provider (ISP) ~~226~~ 225. ISP ~~226~~ 225 in turn provides data communication services through the world large packet data communication network now

commonly referred to as the "Internet" 227. Local network ~~222~~ 223 and Internet 227 both use electrical, electromagnetic or optical signals that carry digital data streams. The signals through the various networks and the signals on network link 220 and through communication interface 218, which carry the digital data to and from data processing system 200, are exemplary forms of carrier waves transporting the information.

[0058] Data processing system 200 can send messages and receive data, including program code, through the network(s), network link ~~220~~ 211 and communication interface 218. In the Internet example, a server 230 might transmit a requested code for an application program through Internet ~~222~~ 227, ISP ~~226~~ 225, local network ~~222~~ 223 and communication interface 212. In accordance with embodiments of the disclosure, one such downloaded application provides for automatic calibration of an aligner as described herein.

Please replace paragraph [0082] with the following paragraph:

[0082] Thus, after the process, all the five possible values for angle θ and three possible values of Y-value are all known. Values that are not measured during the process can now be obtained by introducing the known values back to Table 2. For instance, if the unmeasured combinations are Left Small-Right Medium, Left Large-Right Small, and Left Small-Right Large, the known values θ 1, θ 2, ~~Yn and Yw~~ Ys and Yl can be introduced to obtain their respective values ~~(θ 1, Yn), (θ 2, Yw) and (θ 2, Yn)~~ (θ 1, Ys), (θ 2, Yl) and (θ 2, Ys). Therefore, all the nine possible positional relationships are now known by extrapolation. Since the system obtains the reference data by positioning the alignment cameras on only some of the reference positions, the reference data determination process saves time and system resource, and hence the system efficiency is improved.